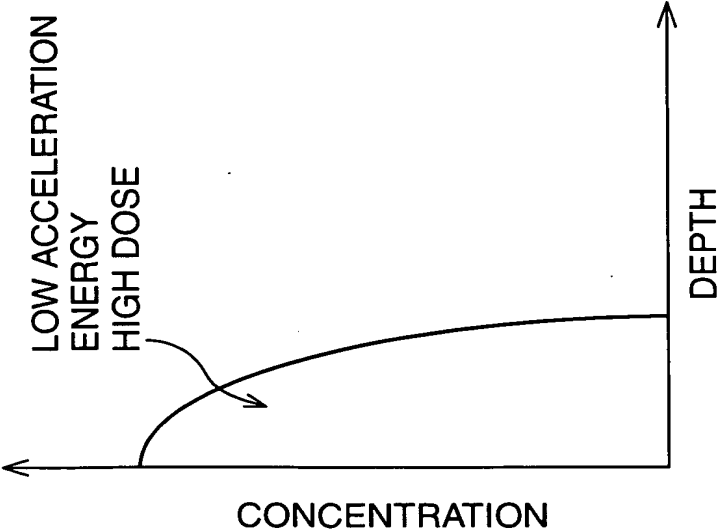
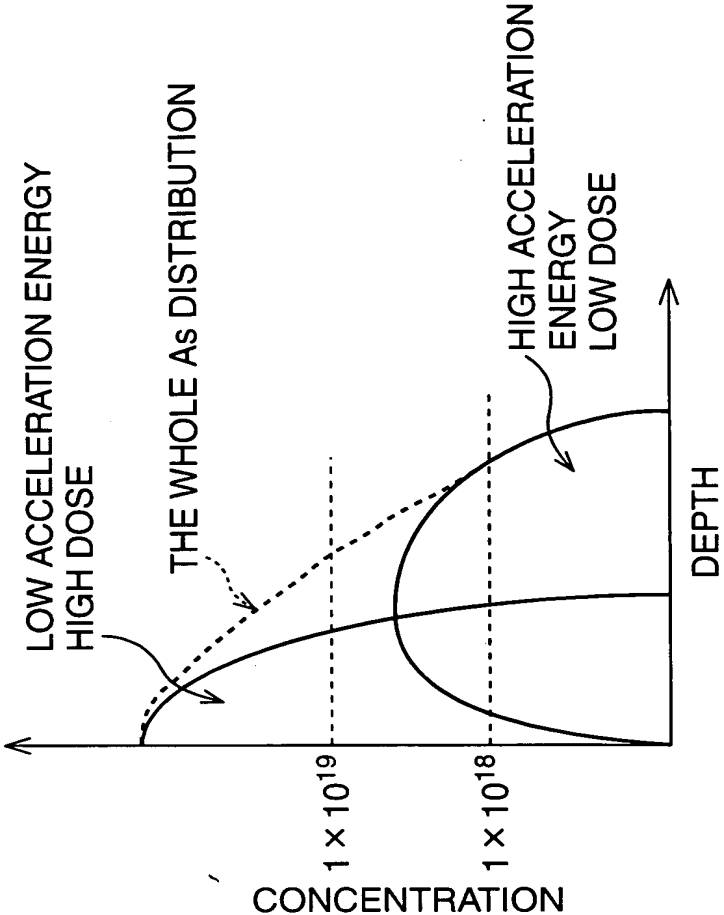


FIG. 1A



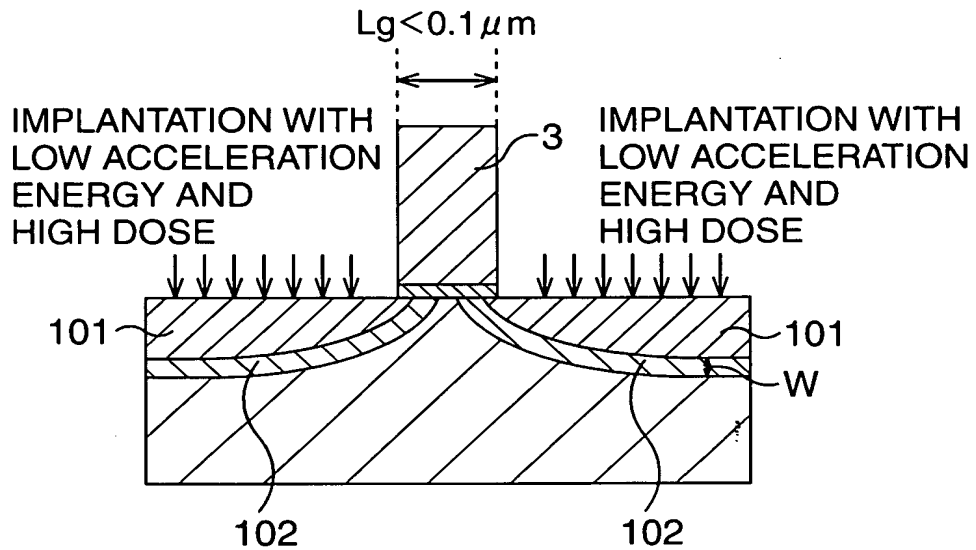
PRIOR ART
(SINGLE As⁺ IMPLANTATION)

FIG. 1B



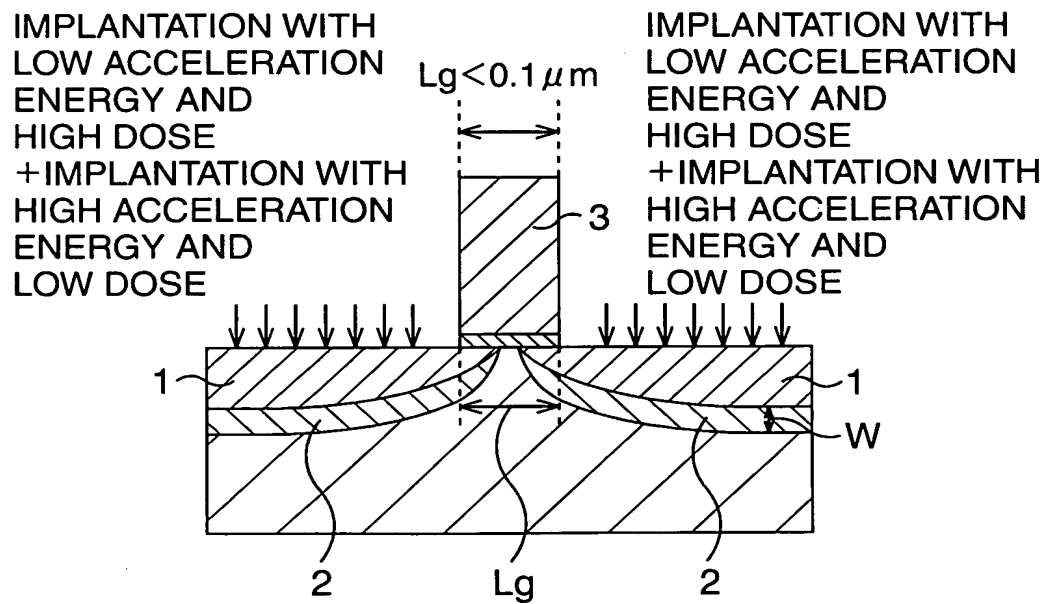
PRESENT INVENTION
(DOUBLE As⁺ IMPLANTATION)

FIG. 2A



PRIOR ART

FIG. 2B



PRESENT INVENTION

FIG. 3

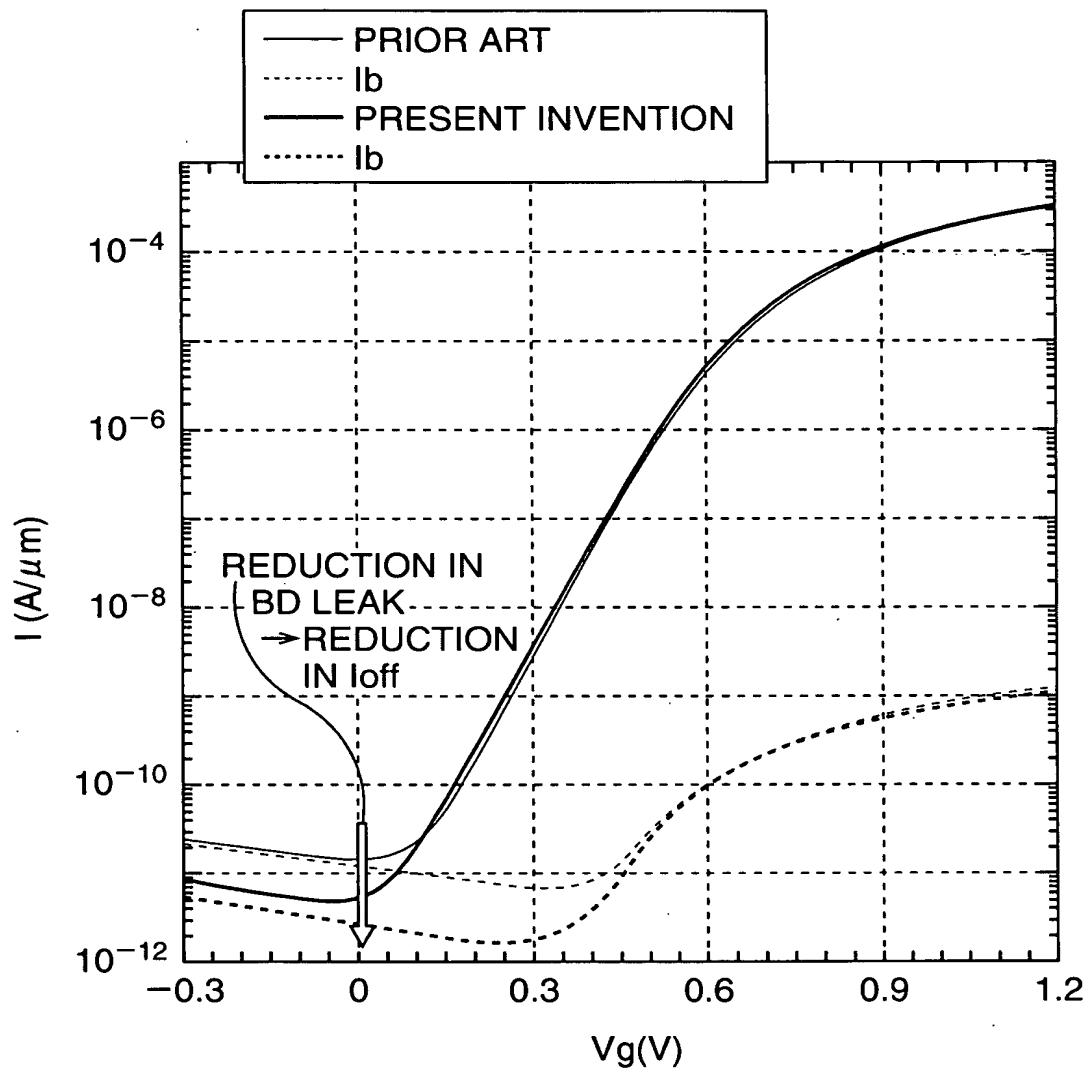


FIG. 4A

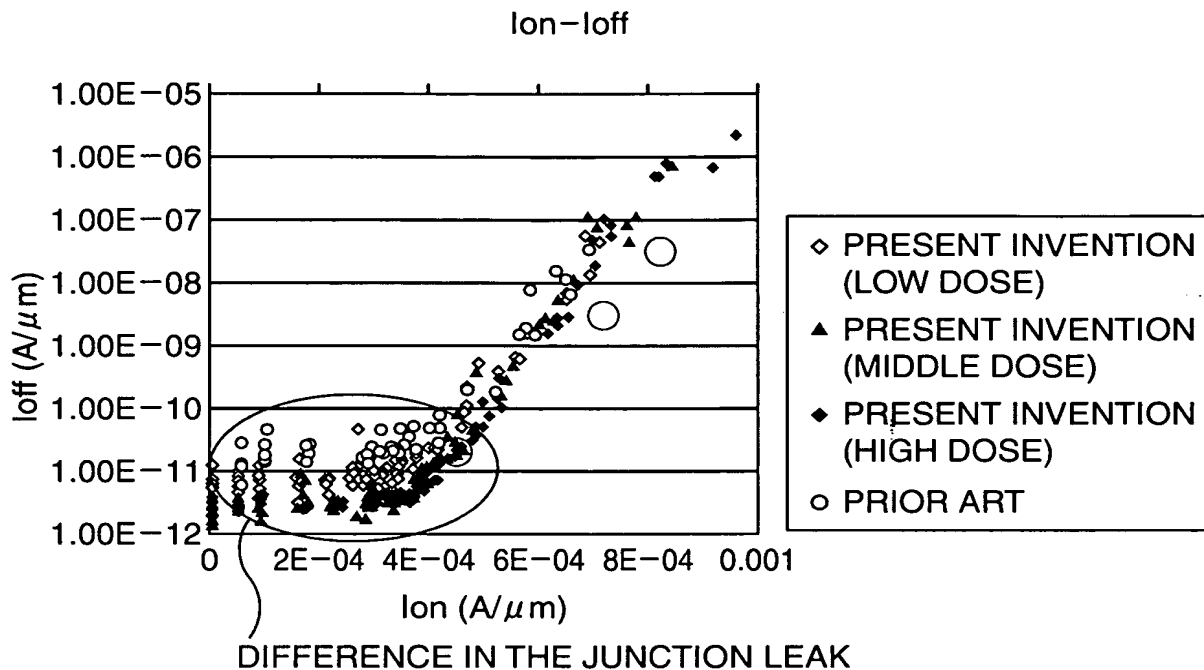


FIG. 4B

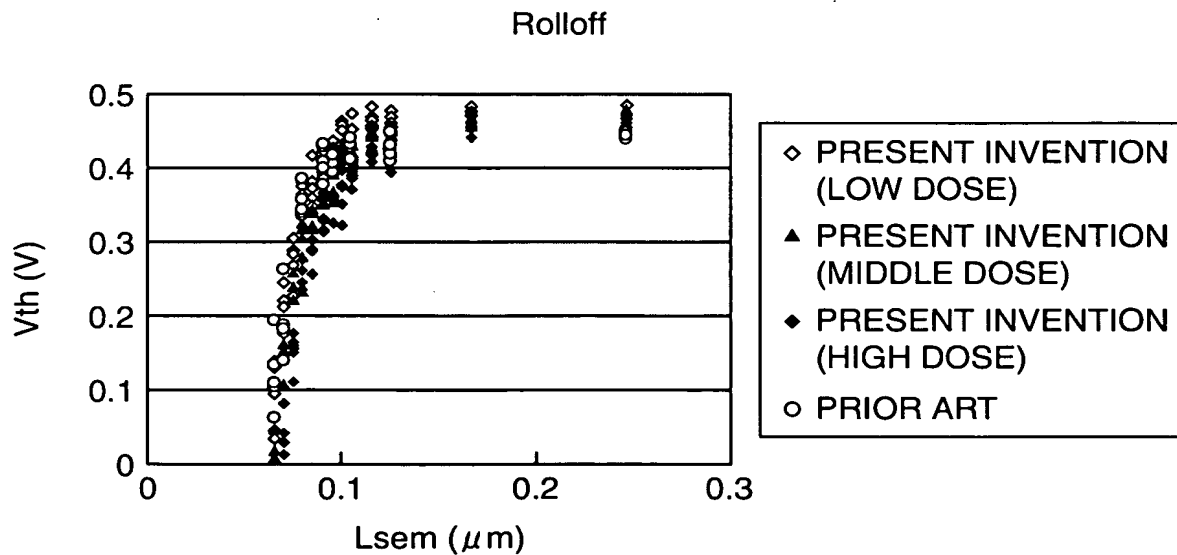
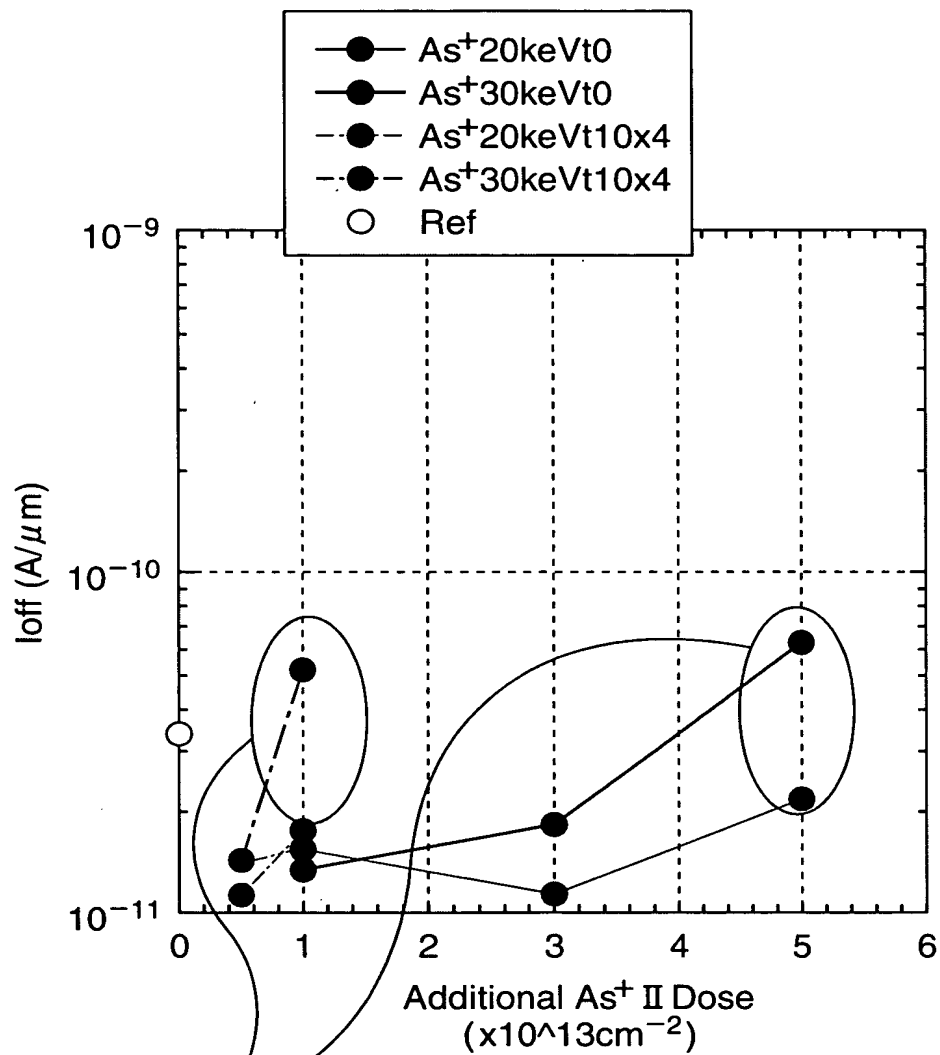
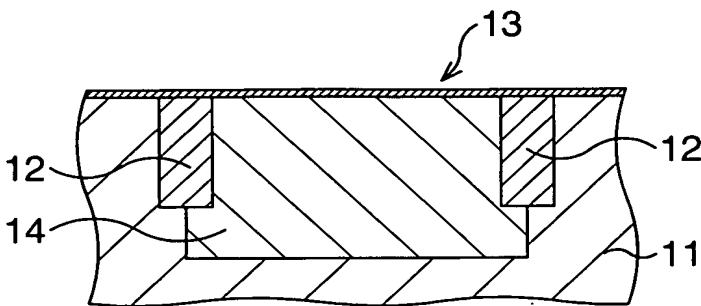


FIG. 5



INCREASE IN I_{off} DUE TO DEGRADATION IN ROLL-OFF CHARACTERISTIC
 $L_g = 80\text{nm}$
 $V_d = 1.2\text{V}$

FIG. 6A



Pwell-II (B⁺)
NVT-II (B⁺)

FIG. 6B

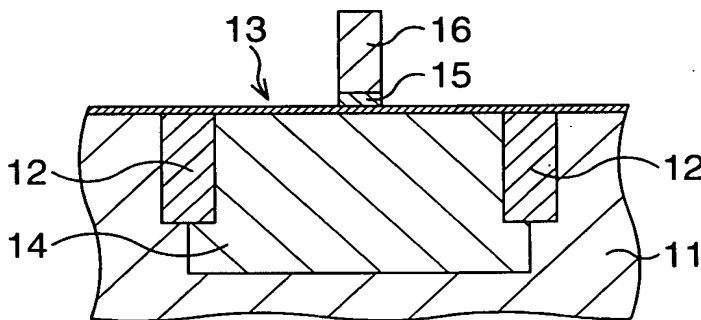


FIG. 6C

IMPLANTATION OF EXTENSION

$$As^+ 20 \sim 30 \text{ keV } 1 \sim 3 \times 10^{13} \text{ t0}$$

+As⁺0.5~5keV0.5~2.5e15t0

(DOUBLE As⁺ IMPLANTATION)

IMPLANTATION OF POCKET

 $B^+ 5 \sim 7 \text{keV}$

6~15e12x4t28

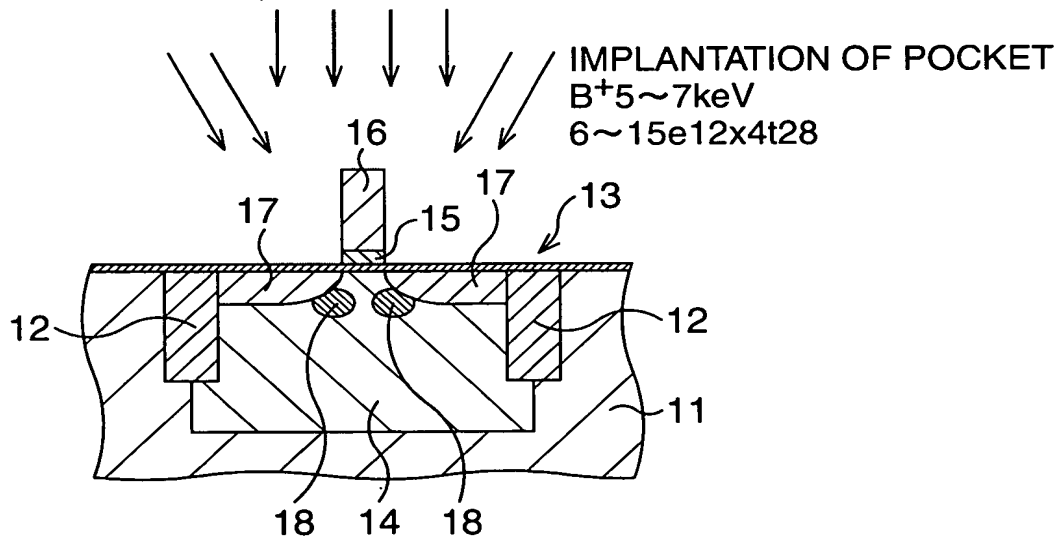


FIG. 7A

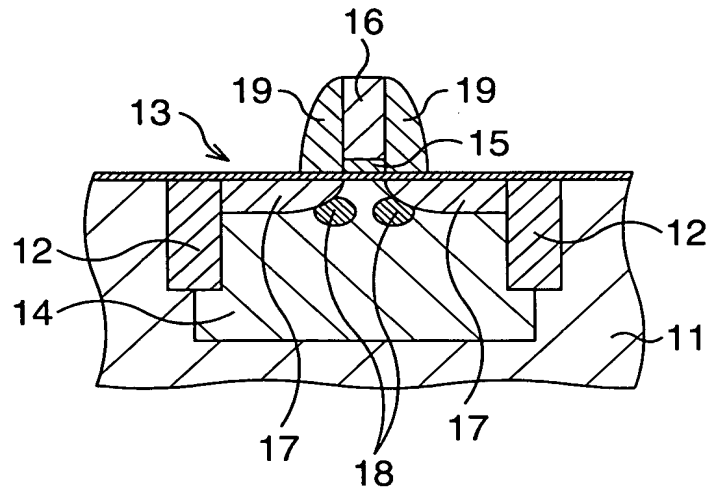


FIG. 7B

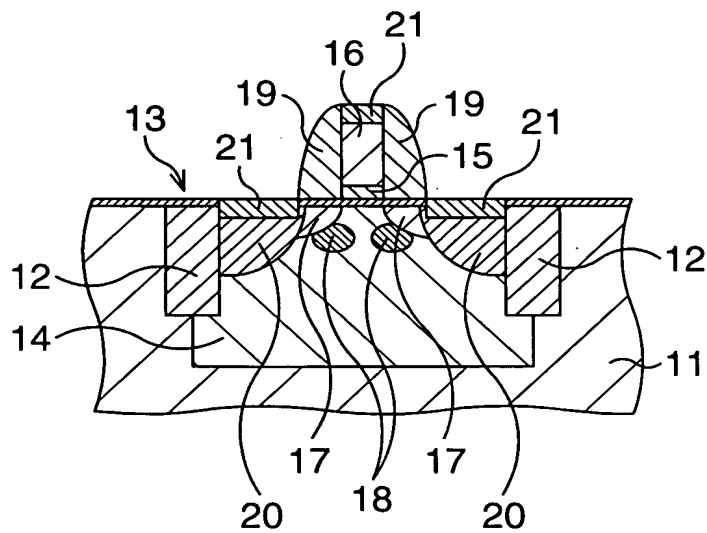
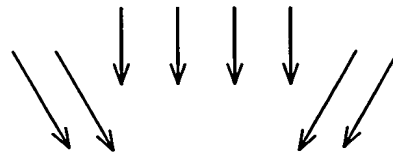


FIG. 8

IMPLANTATION OF EXTENSION
 $As^{+}20 \sim 30keV 1 \sim 3e13t0 + As^{+}7 \sim 10keV 0.5 \sim 1e13x4t7$
 $+ As^{+}0.5 \sim 5keV 0.5 \sim 2.5e15t0$
(TRIPLE As^{+} IMPLANTATION)



IMPLANTATION OF POCKET
 $B^{+}5 \sim 10keV$
 $6 \sim 15e12x4t28$

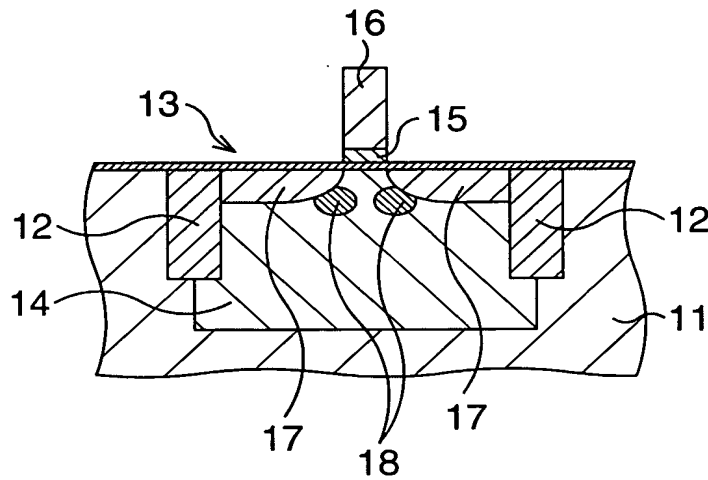
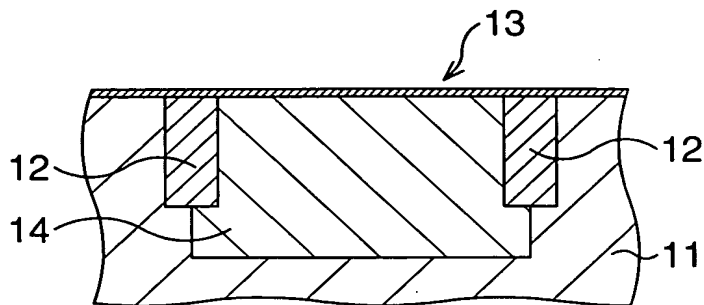


FIG. 9A



Pwell-II (B⁺)
NVT-II (B⁺)

FIG. 9B

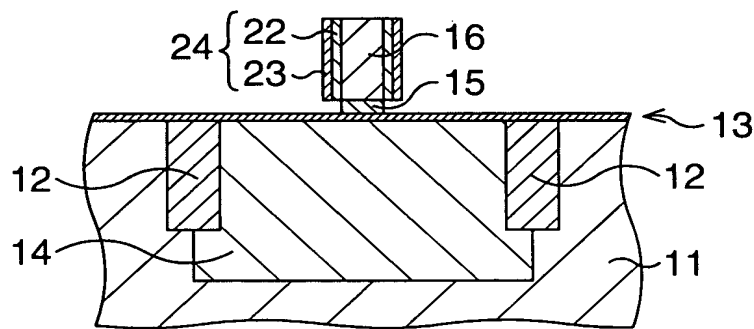


FIG. 9C

IMPLANTATION OF EXTENSION

As⁺20~30keV1~3e13t0

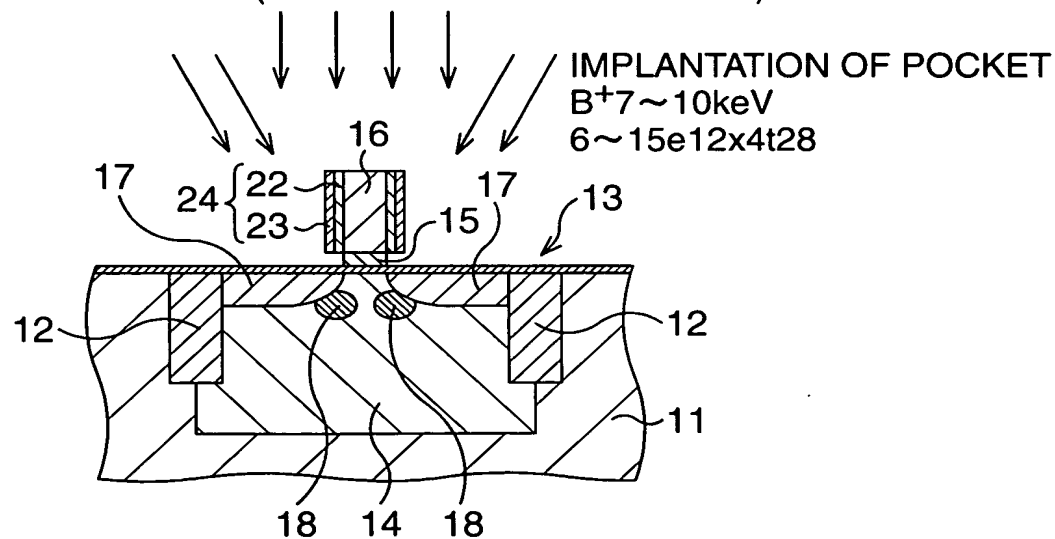
+As⁺0.5~5keV0.5~2.5e15t0

(DOUBLE As⁺ IMPLANTATION)

IMPLANTATION OF POCKET

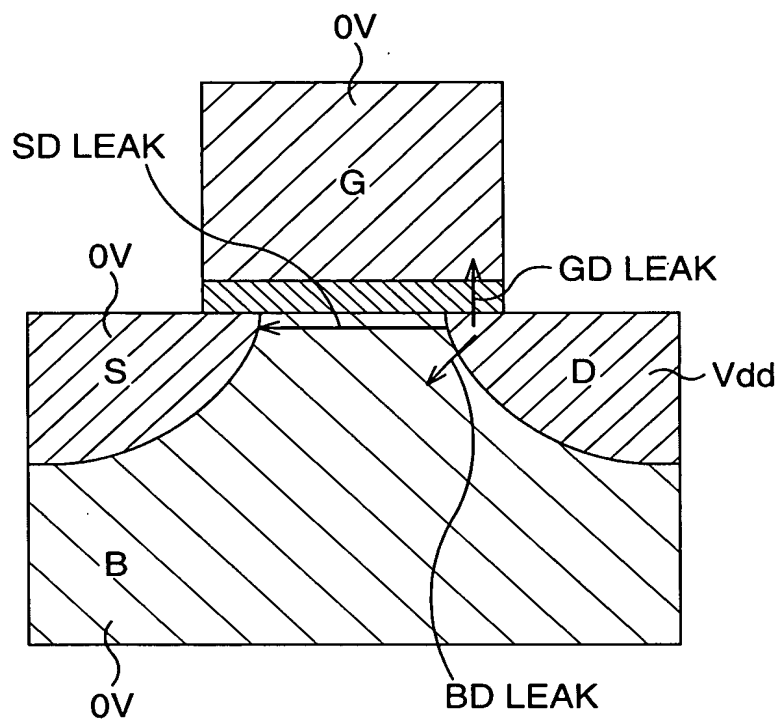
$$B^+7 \sim 10 \text{keV}$$

6~15e12x4t28



[illegible]

FIG. 11



$$I_{off} = \text{GD LEAK} + \text{SD LEAK} + \text{BD LEAK}$$

FIG. 12

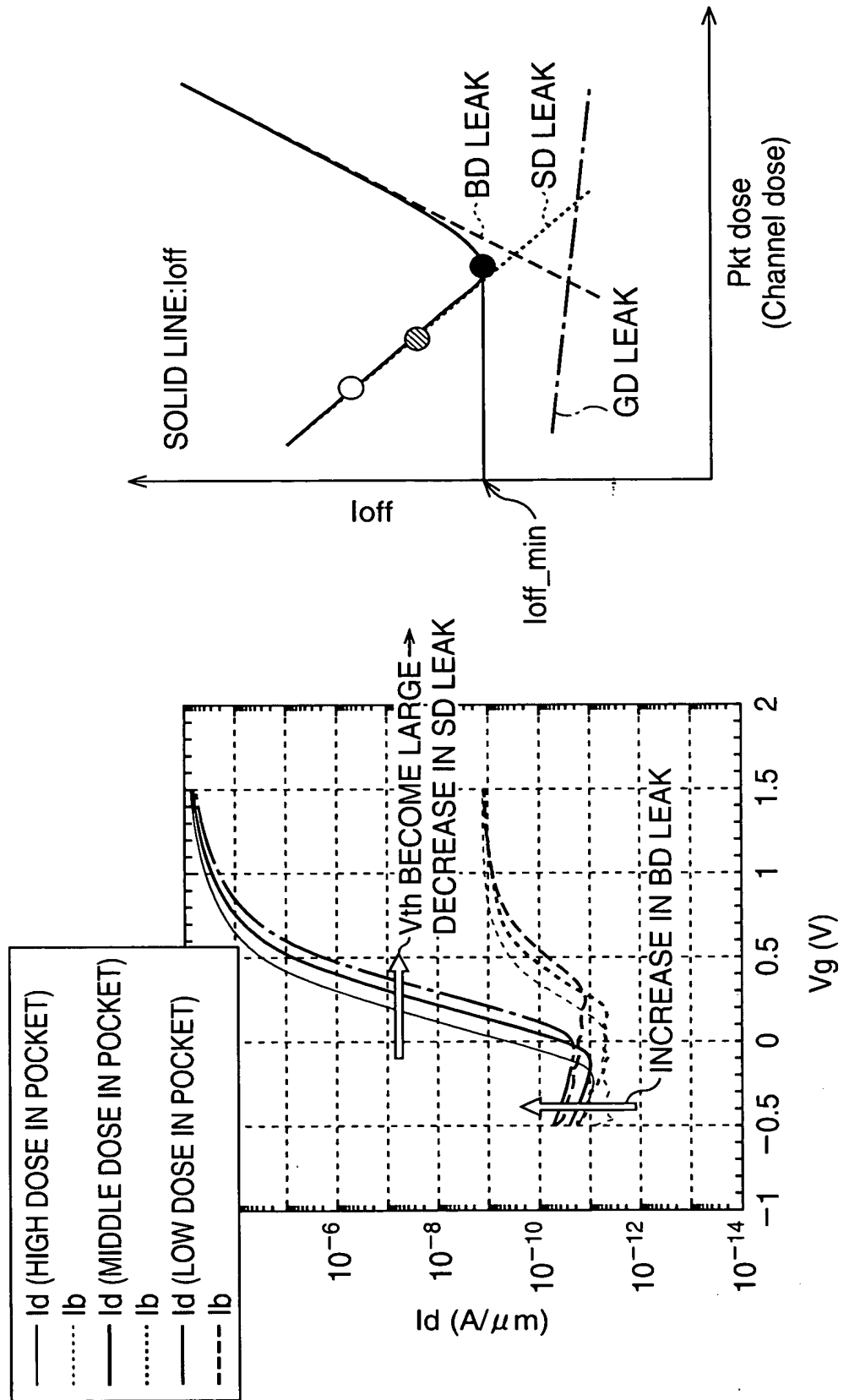


FIG. 13

